Bioreactor Accessories
pH, ORP / Redox & pO2 Probe Simulator

Probe Simulator Features

- Handheld unit designed to test functionality of pH, ORP, Redox and polarographic pO2 transmitters.
- Device will simulate probe signals which will allow the operator to test cables and transmitters for proper working order.
- A battery indicator ensures sufficient power is available when performing tests in the pH, redox and ORP function.
- A high impedance check can be performed to test transmitters capability of utilizing a pH probe with a higher than normal Impedance. This usually occurs with an older probe that has been through several sterilization cycles.
- Accurate pH temperature compensation can be verified with fixed 25ºC, 10ºC and 40ºC settings.
- PH values can be verified with fixed 4, 7 and 10 pH settings. These values allow a simulated calibration routine to be performed as well as a linearity verification.
- ORP / Redox values can be verified with fixed +500mV, 0mV and -500mV settings. These values allow a simulated calibration routine to be performed as well as a linearity verification.
- pO2 values can be verified with fixed 0%, 50% and 100% settings. These values allow a simulated calibration routine to be performed as well as a linearity verification.
- PH features a solution ground jack that works in conjunction with the probe reference and electrode. This allows the transmitter to perform a series of electrical tests on the probe before it is put into service. This feature will only work on transmitters with this capability.
- Use of this simulator will facilitate system troubleshooting, allowing the operator to qualify a cable and transmitter. If the probe itself is in question then the respective probe tester module can be used to test the probe in question.

Specifications (PH-RO/PO2-SC)

- Power Requirements - 9V Battery (Supplied)
- pH Output @ 25ºC - 4pH = (+) 177.0mV ±0.5mV
7pH = 0.0mV ±0.1mV
10pH = (-) 177.0mV ±0.5mV
- pH Impedance - Low = 10 MegΩ ±1%
High = 110 MegΩ ±1%
- Solution Ground - 50K ±1% to pH reference
- ORP/Redox Output - (+) 500mV ±0.5mV
0mV ±0.1mV
(-) 500mV ±0.5mV
- ORP/Redox Impedance - Low = 10 MegΩ ±1%
High = 110 MegΩ ±1%
- pO2 Output - 0% nitrogen N2 (>1.000 MegΩ)
50% air (10 MegΩ ±1%)
100% air (20 MegΩ ±1%)
Ratio accuracy = ±0.1%
- RTD - 22.1K ±1%

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